The Citizens' Perception of Community in Kawasaki City Centered around Community Association Members: Results of Questionnaire Survey Conducted through Voluntary Organizations for Disaster Management

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1 . Introduction

The purpose of this study is to clarify the community consciousness of citizens in Kawasaki City with a focus on the members of voluntary organizations for disaster management (community associations), and discuss the fostering of community consciousness and social capital among Kawasaki City residents based on a comparison with previous studies. In the following chapters, we will start by arranging previous studies concerning community association-oriented organizations and their activities, and shed light on the various characteristics of community associations and the issues concerning functions for fostering social capital. Next, we will arrange our findings with a focus on the results of responses related to community consciousness included in the "Survey on Local activities for disaster management" conducted among voluntary organizations for disaster management in Kawasaki City. Following this, from comparisons with previous studies, we will consider the characteristics of community consciousness and functions for fostering social capital among Kawasaki City residents with a focus on voluntary organizations for disaster management.

Also note that the term Social Capital discussed in this study refers to "features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions [1].

2 . Previous studies on Community Association Organizations

In terms of previous studies on community associations in Japan, we can cite the *Nationwide Neighborhood and Community Association Surveys* by Yutaka Tsujinaka, Robert Pekkanen and Hidehiro Yamamoto (2009) [2]. This was a nationwide survey of community association

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1 Robert Putnam (2000).

2 Yutaka Tsujinaka, Robert Pekkanen and Hidehiro Yamamoto (2009).

organizations conducted between 2006 and 2007 which shed light on the various characteristics and issues of community association organizations based on responses from 18,404 community associations (their representatives), and also clarified their functions as civil society organizations, such as the fostering of social capital, provision of social services and advocacy (policy recommendations).

Neighborhood resident organizations such as community associations go by many different names, such as community association, neighborhood associations, ward and town resident associations, and so on, and their history is equally varied. Given this, in the survey conducted by Tsujinaka et. al., a community association was defined as "a group made up of local residents which engages in activities to maintain or better residents' lives by improving the residential environment and facilities, promoting friendship or otherwise," and responses were sought on the side of those responsible at the municipality-level regarding "organizations in the relevant areas recognized as those facing so-called community associations and neighborhood associations"[3]. This is because, considering the diversity of neighborhood resident associations, organizations that the persons concerned recognized as "community associations" were deemed preferable.

In addition, in this survey clarified five aspects of community associations, namely (1) social capital; (2) mutual relationships with other groups; (3) activities to provide social services; (4) cooperation with the government; and (5) participation in politics. Since community associations are made up of local residents, the performance of community association organizations is largely reliant on the interpersonal relationships of residents. The smoother and mutually cooperative the interpersonal relationships between residents are, the higher the performance of the community association organization, forming networks associated with trust and the norms of reciprocity in the process of joint work. Through the formation of social capital in this way, coordinated actions aimed at addressing local lifestyle issues are enhanced. Due to these characteristics, community associations that support local communities are regarded as opportunities to foster social capital[4].

The characteristic of Japanese community association organizations is that while a wide range of local activities are undertaken for the residents that comprise their membership, they convey their own claims while coordinating with the government and helping it enact policies and deliver social services[5]. Community associations that mediate between local residents and the government in this way can be termed as "civil society organizations as government intermediaries" (straddling civil society)[6].

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3 Tsujinaka et. al. (2009) *op.cit.*, p. 34

4 Pekkanen, R.J. (2006).

5 Tsujinaka et. al. (2009) *op.cit.*,pp. 28-29

6 B.L. with R.J. Pekkanen eds. (2009).

2 - 1 . Various Characteristics of Community Associations

In the following section, we will arrange the characteristics of community associations based on the results of the survey conducted by Tsujinaka et. al. (2009).

Firstly, the representatives of community associations are almost all male (97%) and males in their 50s and over account for 79.5% of such representatives. 75.3% of the heads of community associations have resided in the area for at least thirty years, and retirees account for many of those holding important positions such as board members. On average, community associations have 228.9 member households, but the median value is 107 households and the mode is between 20 and 39 households, making for quite a distorted distribution. As community associations with memberships of less than 100 households account for 47.3% of all associations, it is fair to say that the majority of community associations are small-scale organizations. Speaking of the relationship to the size of a city, the greater the population of the municipality, the larger the community association organization tends to become. Therefore, when we refer to a "community association," although small-scale organizations with memberships of less than 100 households account for roughly half (47.3%) of all such organizations across Japan, considered in terms of the number of households, households that account for almost half (51.2%) of all local residents belong to large-scale community associations with memberships of at least 500 households, and we must consider the point that the number of households affiliated with small-scale community associations with memberships of less than 100 households represent 9.2% of all households.

The financial size of community associations is proportional to the number of member households. On average the total annual revenue of a community association with less than 50 households is 700,000 yen, while the average is 6,402,000 yen for community associations with at least 500 member households. Conversely, the larger the community association the smaller its fiscal scale (total revenue) per household. While total revenue per household is 7,000 yen for community associations with at least 500 member households, the figure is 24,000 yen for those with less than 50 member households. Revenue from membership fees forms the main source of community association revenue, accounting for around 60 percent of total revenue, followed by subsidies and fees. Community association fees per household are inversely proportion to the association's size. Community associations with membership fees of less than 500 yen account for 81.6% of community associations with at least 500 member households, while only 26.9% of those with less than 50 member households. In other words, the size of a community association and the amount that each member pays needs to be regarded as the cost burden of the social services provided based on its human and financial resources.

Community associations across Japan can be broken down into the following four patterns based on variables representing timing of establishment, number of member households, population size of the city, ward, town or village they represent and the size of agriculture, forestry or fishing premises maintained.

(1) Rural Community Type: A small-scale agriculture-oriented community association that has existed in a small city for a long time. This type is often seen in rural communities. Among

this type, the timing of establishment is unclear for 70.3%, 75.4% are made up of less than 100 households, 81.0% are located in a city of less than 100,000 people, and 64.8% possess agricultural, forestry or fishing premises.

(2) Non-Urban New Type: A new and small-scale community association that has been recently established and is located in a small city. This type also maintains some amount of agricultural, forestry or fishing premises (37.2%). 34.5% of this type were established in 1996 or later, and none were established prior to 1965. 55.3% of this type are made up of less than 100 member households, and 65.5% are located in a city of less than 100,000 people.

(3) Urban Old Type: A large-scale community association that has existed in a large city for a long time. Among this type, the timing of establishment is unclear in 50.1% of cases, and none of these community associations were established after 1956. 62.1% of this type has at least 200 member households, 60.2% are located in cities of at least 200,000 people, and 34.8% possess agricultural, forestry or fishing premises.

(4) Urban New Type: A relatively new large-scale community association in a large city. 77.7% of this type was established between 1956 and 1975. 58.3% are made up of at least 200 member households, 56.7% are located in cities of at least 200,000 people, and 84.8% do not possess agricultural, forestry or fishing premises.

Overall, Rural Community Type community associations are the most common (43.1%), followed by Urban Old Type (23.4%), Urban New Type (19.9%) and Non-Urban New Type (13.6%). However, looking at the types in terms of the proportion of households nationwide, the Urban Old Type accounts for the most (45.4%), followed by Urban New Type (33.8%), Rural Community Type (13.1%) and Non-Urban New Type (7.8%).

Looking at the types by region, around half of Rural Community Type community associations are located in the Hokkaido / Tohoku, Hokuriku / Shin-etsu, Chugoku / Shikoku and Kyushu / Okinawa regions. Non-Urban New Type community associations are slightly more common in Hokkaido and Tohoku (21.0%), and many Urban Old Type community associations are seen in the Kanto, Kinki and Tokai regions (around 28-38%). Urban New Type community associations are common in the Kanto (29.6%) and Kinki (26.9%) regions. Looking at the types by municipality, Urban Old Type community associations are common in Meguro-Ward, Ota-Ward, Bunkyo-Ward and Kita-Ward in Tokyo (74-100%), and in Seto City, Toyohashi City and Toyokawa City in Aichi Prefecture (83-100%). Urban New Type community associations are common not only in regional cities such as Imizu City, Toyama Prefecture and Izumi City, Osaka Prefecture (both 100%), but are also included in large cities such as Sapporo City (80%), Kobe City (66%) and Saitama City (52%). In the case of Kawasaki City, there is a mix between Urban Old Type (56.1%) and Urban New Type (43.9%).

2 - 2 . Fostering of Social Capital in Community Associations

To ascertain the social capital fostering functions inherent in community associations, Tsujinaka et. al. performed analyses based on three points, namely (1) community association membership rates; (2) resident interaction and participation in community association activities; and (3) social

capital indexes and specific factors. As a result, they clarified that social capital in community associations was higher the greater the support of community associations from the municipality, and the more lively the initiatives and resident interaction on the part of the community association. In addition, while social capital was higher for Rural Community Type community associations and lower the more fluid the population, the more urban and fluid the population of a community association the more active was resident interaction in recent years.

(1) Community association membership rate

Community associations with membership rates of at least 90% account for 75.3% of the total (51.8% in a similar survey of municipalities). Among Rural Community Type community associations the rate is 86.5%, while it is 80.4% for the Non-Urban New Type, 62.5% for the Urban Old Type and 64.3% for the Urban New Type. A large number of housing complexes and single member households in the subject area was cited as a characteristic trait of community associations with low membership rates. Among community associations with membership rates of less than 80%, 74.1% had housing complexes in the area, while the figure was 26.0% among community associations with 100% membership rates. Similarly, among community associations with membership rates of less than 80%, 31.1% of households in the area were single-member households, while this figure was 22.5% for community associations with 100% membership rates.

(2) Resident interaction and participation in community association activities

Looking at this point overall, community associations that involved "interaction to the extent of standing around chatting" accounted for the majority (55.0-63.4%). Among Rural Community Type community associations, 34.6% of associations "cooperated with one another in aspects of life" and 10.1% engaged in "interaction to the extent of greetings," but across other types "cooperating with one another in aspects of life" stood at 12.1-20.0%, while "interaction to the extent of greetings" stood at 19.8-24.1%. Regarding resident interaction, 51.4% of all community associations reported no change compared with five years prior, while 35.6% said interaction had "become more active." Looking at these factors by association type, while the proportion indicating that interactions had become more active was 25.3% among Rural Community type community associations, this was at least 40% among the other association types. Looking at the rate of participation in community association activities such as general meetings, cleaning, patrols and festivals, rates of participation declined in the order of Rural Community Type, Non-Urban New Type, Urban Old Type and Urban New Type.

(3) Social capital indexes and specific factors

Here, a social capital index is created from the points on resident interaction and participation in community association activities. The overall average is 15.2, and on a type-basis declines in the order Rural Community Type (16.4), Non-Urban New Type (15.1), Urban Old Type (14.2) and Urban New Type (13.9). In addition, based on the relationship with

the social capital index described in the *Japan's Social Capital and Policy* (Questionnaire Survey on Social Life)[7] conducted by the Japan Research Institute, Limited, it has become clear that there is a particularly strong correlation between the Social Participation Index (comprising the state of participation in local activities and the state of participation in volunteer activities, NPOs and civil activities) and the Bonding Index (comprising the degree of neighborhood interaction and the state of participation in regional bond-oriented activities). We can therefore say that social capital in community associations represents homogenous links between people (bonding) and that this is linked with participation in activities.

With respect to specific factors of social capital, support measures undertaken by municipalities are related. It became clear that at community associations that receive support through subsidies of at least 300,000 yen, social capital is low but resident interaction has been activated. Moreover, the more a community association conducts activities that promote friendship, the higher the social capital is, with the additional effect of activating resident interaction. The face-to-face transmission of information and the presence of activity hubs also enhance social capital. While interaction tends to be deeper and smoother at Rural Community Type community associations, community associations in urban areas and new community associations, resident relationships have shown an intensifying trend despite being tenuous. In other words, while regional disparities in the social capital at community associations are seen, it is believed that by having different factors contribute to changes in resident interaction, those aspects will continue to change.

3 . Survey on Community Consciousness Conducted through Voluntary organizations for disaster management (Community Associations) in Kawasaki City

The Center for Social Capital Studies, Institute for the Development of Social Intelligence, Senshu University has adopted the concept of social capital in communities and regional societies as its research framework and conducted fact-finding surveys in various regions throughout East Asia. The "Survey on Local activities for disaster management" was conducted as a part of these survey activities. The purpose of the survey was to analyze local capabilities for disaster management and the ability to run local communities in Kawasaki City and the relationship of these qualities to social capital. Specifically, by ascertaining things such as local residents' consciousness of disaster management and the status of activities conducted by voluntary organizations for disaster management, and by gaining an understanding of local residents' consciousness of community, including sense of trust in the region and neighborhood interactions, we aim to shed light on current circumstances and issues of social capital in Kawasaki City and utilize the findings in the operation of future regional activities.

The implementation framework of the survey and the survey schedule were as follows.

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7 Japan Research Institute (2008).

- Implementation Body: Center for Social Capital Studies, Institute for the Development of Social Intelligence, Senshu University
- Support: Kawasaki-City Voluntary Organization for Disaster Management Liaison Council, and Crisis Management Office, General Affairs Bureau, Kawasaki City
- Survey Contractor: Survey Research Center Co., Ltd.
- Survey Period: May 7, 2013 to May 31, 2013
- Persons Surveyed: Kawasaki City residents, primarily the members of Kawasaki City Voluntary Organizations for Disaster Management (neighborhood associations)
- Survey Method: Postal survey
  (1) Working through the Kawasaki City General Affairs Bureau, Voluntary Organizations for Disaster Management (710 groups) were asked to cooperate with the survey
  (2) Survey forms were sent from the seven ward offices of Kawasaki City to the representatives of Voluntary Organizations for Disaster Management located in those wards
  (3) The representatives distributed the survey forms to five local residents chosen arbitrarily and asked them to respond
  (4) The respondents including the representative (six respondents in total) returned the responses to Survey Research Center using the return envelopes provided
- Distributed Sample Size: 4,260 (six surveys distributed to each of the 710 Voluntary Organizations for Disaster Management in Kawasaki City)
- Number of Surveys Collected / Response Rate: 1,949 (45.8%)
- Survey Details

Survey Details	Number of Questions	Remarks
Ⅰ. Respondent attributes	8	Age, gender, years and type of residence, etc.
Ⅱ. Local capabilities for disaster management	11	State of local activities for disaster management, organizations relied on during a disaster, etc.
Ⅲ. Social trust	10	Degree of trust of society, degree of trust in regional community, etc.
Ⅳ. Operation and improvement of lifestyle	6	Level of life satisfaction, recognition of current situation, etc.

As the purpose of the study is to clarify the community consciousness and activities of Kawasaki City citizens, primarily the members of community associations (voluntary organizations for disaster management), within the above survey, an analysis was performed on the questions, with a focus on I. Respondent attributes, III. Social trust and IV. Operation and improvement of lifestyle.

3 - 1 . Overview of Survey Results

Outlines of the survey results for each question are given below.

(1) Respondent profiles

As noted earlier, since the persons surveyed were the representatives of voluntary organizations for disaster management and five local residents they selected arbitrarily, the results showed extremely high levels of understanding of and involvement with voluntary organizations for disaster management (community association activities).

In their areas of residence, the organizations responsible for local activities for disaster management comprised "neighborhood and community associations" (71.2%) and "housing complex or apartment building residents' association" (19.0%). We can therefore say that neighborhood associations and community associations are responsible for local activities for disaster management (90.2%, Figure 1). The state of participation in local activities for disaster management (the total of "take part a lot" and "sometimes take part") was very high at 83%. In terms of relationship with voluntary organizations for disaster management, 45.3% were a "director of a voluntary disaster management organization," 24.5% were a "member of a voluntary organization for disaster management" and 5.7% "belong to an organization related to a voluntary organization for disaster management." Combining these shows that 75.5% of respondents are in some way involved with a voluntary organization for disaster management, namely a neighborhood association or community association (Figure 3). What's more, the majority of respondents (84%) answered with respect to the organization to which they belonged, suggesting a clear consciousness of membership in such organizations (Figure 4). It is therefore safe to regard the results of this survey as reflective of the "community consciousness of citizen's in Kawasaki City centered around community association (voluntary organization for disaster management) members."

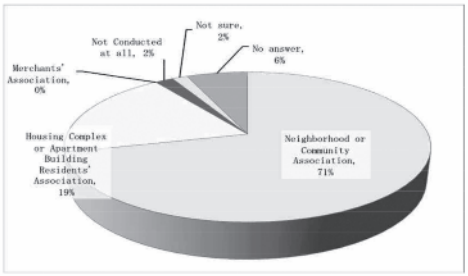

Figure 1: Assigned Voluntary Organization for Disaster Management

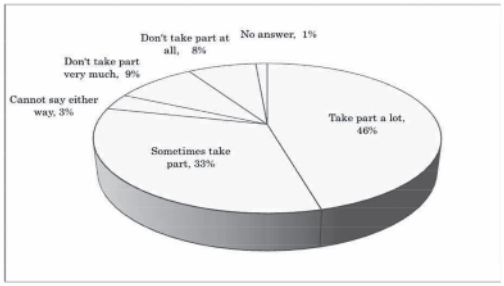

Figure 2: Participation in Local Activities for Disaster Management

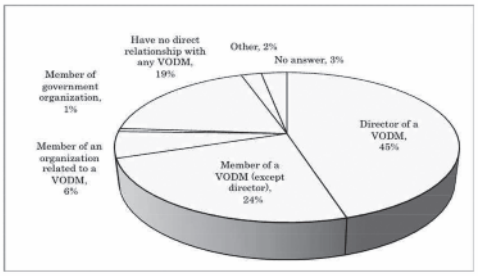

Figure 3: Relationship with Voluntary Organizations for Disaster Management (VODM)

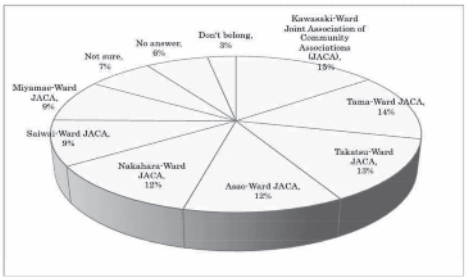

Figure 4: Organizational Membership in Neighborhood or Community Associations

Respondents were overwhelmingly male (71%), with a large majority comprising those in their 60s or older (72%). As around half (49%) were unemployed and stay-at-home husbands or wives, we can infer that retired males make up the core membership of community associations (voluntary organizations for disaster management) in Kawasaki City. Areas of residence were spread almost evenly across all wards (Figures 5-8).

Looking at respondents' form of resident, a large majority (85%) live in their own homes (detached homes or apartments), while more than half (69%) have a residence history of at least 30 years. Inferring based on the fact that a large majority of respondents (81%) are in their 50s or older, it is believed that the majority of respondents have lived in Kawasaki City since their youth or childhood years, or were both born and raised in Kawasaki City. Conversely, it is believed that few of those living in rented accommodations (13%) or with a residence history of less than 30 years (29%) are representatives or people associated with community associations (Figures 9-10).

As a majority of respondent households (58%) comprised between two and three members, the core household configuration could be described as a married couple in their 60s or older and another family member. A large majority (70%) of respondents said they wanted to continue to live in Kawasaki City, and 80% reported satisfaction with their lives in Kawasaki City (Figures 11-13).

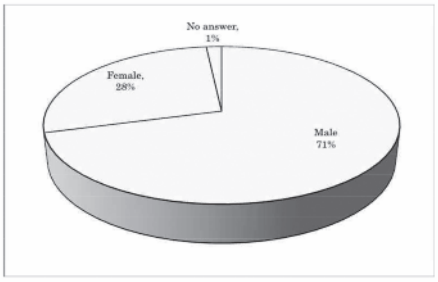

Figure 5: Gender

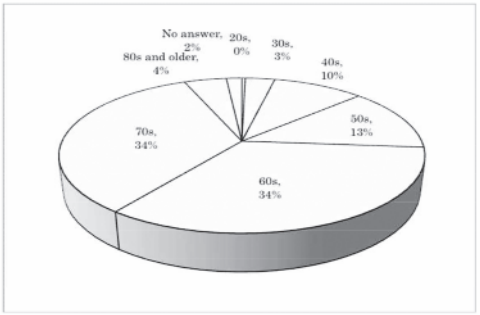

Figure 6: Age Group

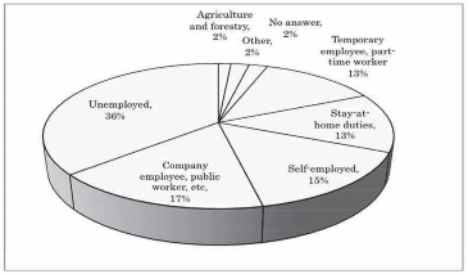

Figure 7: Occupation

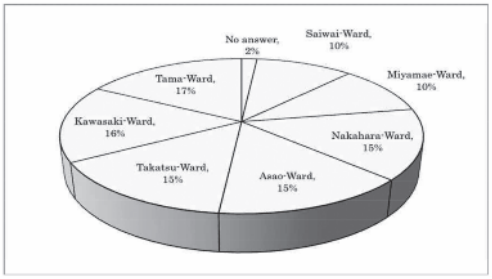

Figure 8: Area of Resident (ward)

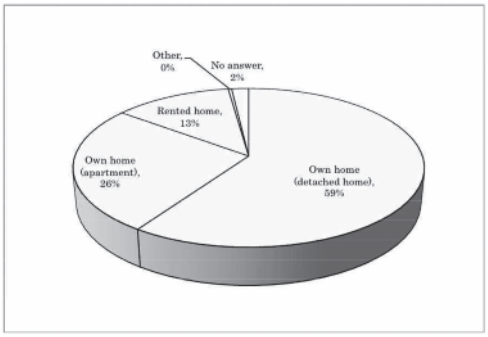

Figure 9: Type of Residence

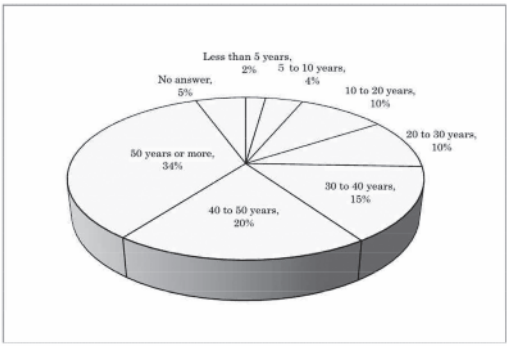

Figure 10: Years of Residence

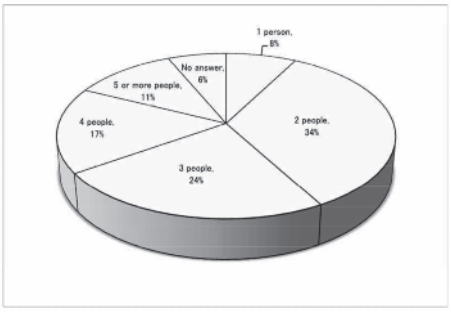

Figure 11: Household Size

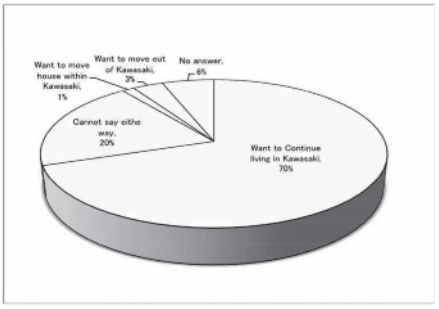

Figure 12: Residence Intentions

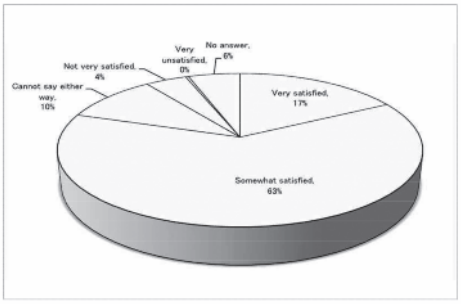

Figure 13: Level of Life Satisfaction

(2) Consciousness of Society

(1) General trust

Among responses indicating the social consciousness of respondents, looking at "general trust" of people, 57% said they could trust people ("can trust most people" + "can trust a lot of people"), while 41% responded that even while traveling, they could trust people ("can trust most people" + "can trust a lot of people") (Figures 14-15). Compared with the results of surveys in previous studies, these figures are extremely high [8].

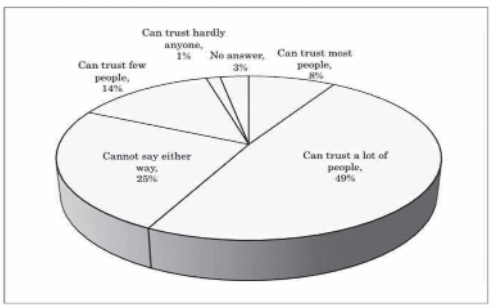

Figure 14: General Trust of Society

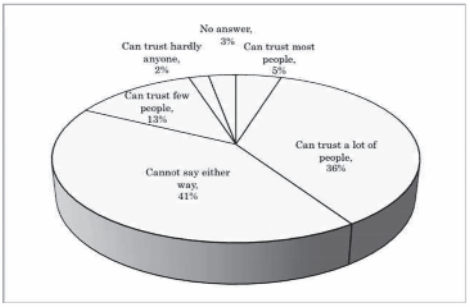

Figure 15: Trust while Traveling

(2) Particularized trust

Figure 16 is a summary of the "person or organization you can consult with over troubles or concerns in daily life."

Here, particularized trust was highest for "Family Members," followed by "Friends or Acquaintances," "Relatives," "Neighbors" and "Police and Fire Departments." Conversely, trust of "Religious Organizations" and "Political Parties or Politicians" was low. Perhaps due to the fact that the majority of respondents were retirees, trust of "Former Colleagues" of the workplace was rather low (Figure 16).

8 For information on the results of surveys from previous studies, see "Changes in Local Communities and Social Capital – Arranging Issues based on Previous Studies," published in this journal.

Figure 16: Person or organization you can consult with over troubles or concerns in daily life

	Reliable	Cannot say either way	Unreliable	No answer
(1) Family members	89.8	4.2	2.2	3.9
(2) Neighbors	47.3	30.7	17.2	4.7
(3) Relatives	52.2	23.6	19.0	5.3
(4) Friends and acquaintances	54.2	28.6	12.0	5.3
(5) Workplace colleagues	19.4	29.6	27.5	23.6
(6) Neighborhood or community associations	51.1	28.7	15.2	5.1
(7) Volunteer organizations, NPOs, etc.	16.2	45.7	29.1	9.1
(8) Religious organizations	6.8	21.0	61.2	11.1
(9) Police or fire departments	46.4	31.4	15.8	6.3
(10) Schools or hospitals	39.7	36.7	16.2	7.4
(11) Political parties or politicians	11.0	31.6	49.2	8.2
(12) Town or ward office	37.6	35.1	21.4	5.9
(13) Kanagawa Prefecture	19.3	41.8	32.8	6.2
(14) National government	16.0	38.6	39.1	6.3
• "Reliable": Total of "very reliable" and "somewhat reliable" • "Unreliable": Total of "not very reliable" and "not reliable at all"				

(3) Networks: Interaction

Regarding interaction with relatives, roughly half (53%) chose "interact sometimes (once a month to several times a year) (Figure 17). For interaction with friends and acquaintances outside school or the workplace, "interact sometimes" (45%) was the highest response, followed by "interact somewhat frequently" (24%) and "interact daily" (19%), indicating that 43% of respondents engage in relatively frequent interaction of this nature (Figure 18).

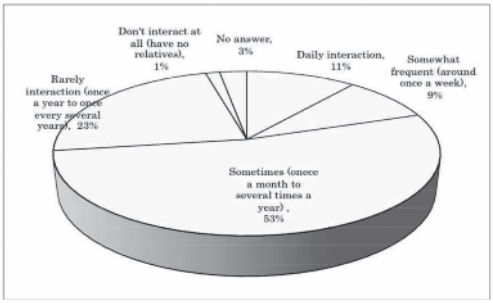

Figure 17: Frequency of Interaction with Relatives

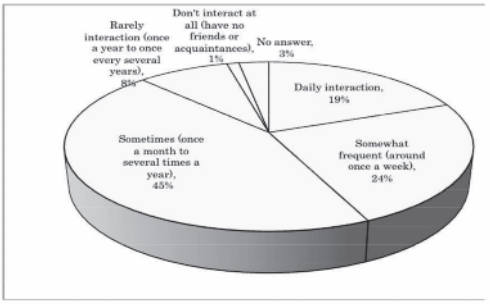

Figure 18: Frequency of Interaction with Friends and Acquaintances Outside School or the Workplace

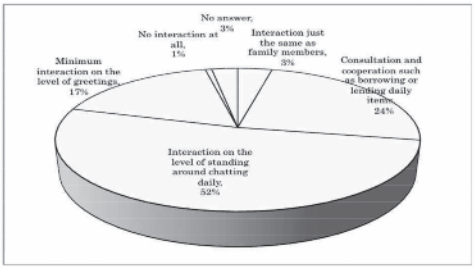

Figure 19: Degree of Interaction with Neighbors

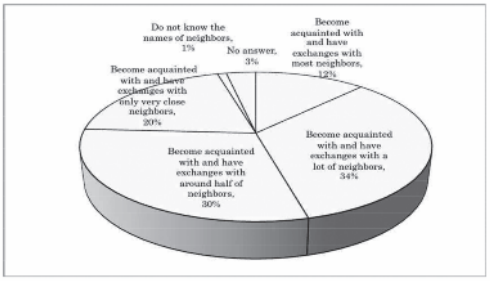

Figure 20: Proportion of Interaction with Neighbors

For the degree of interaction with neighbors, "interaction on the level of standing around chatting daily" was the most common (52%), and when combined with "consulting and cooperating with some neighbors such as borrowing or lending daily items" (24%) and "interact with many just the same as family members" (3%), it appears that 79% of respondents engage in relatively close neighborhood interaction. As for the proportion of neighbor interaction, "become acquainted with and have exchanges with a lot of neighbors" (34%) and "become acquainted with and have exchanges with around half of neighbors" (30%) were the most common, and since this rises to 76% when combined with "become acquainted with and have exchanges with most neighbors" (12%), the respondents are regarded as engaging in widespread acquaintanceship and exchange with neighbors. These figures can be said to support the high level of trust afforded to neighbors shown under "Particularized Trust" in (2)-2) above (Figure 19-20).

(4) Networks: social participation

For activities oriented towards regional bonds, the majority recognize these activities are "conducted to certain extent" (60%), while only a few (10%) harbor negative views (Figure 21). In terms of activities in which people take part locally, regional bond-oriented activities (community associations, neighborhood associations, women's groups, elderly persons' associations, youth organizations, children's associations, etc.) were the most common (88.0%), followed by "Volunteer, NPO and civic activities (town development, welfare for the elderly and disabled, child-raising, sports guidance, beautification, security and disaster management, environmental activities, international cooperation, advocacy, etc.) at 48.3% and sport, hobby and leisure-oriented activities (various sports, art and culture-oriented activities, lifelong learning, etc.) at 44.3%. From this, we can infer that respondents are comparatively more passionate about engaging in regional bond-oriented activities (Figure 22). In terms of things gained through local activities, common responses included "being able to establish ties with various local people" (72.7%), "being able to contribute to the region and society" (61.3%) and "knowledge and expertise in the field of the activities" (42.8%) (Figure 23).

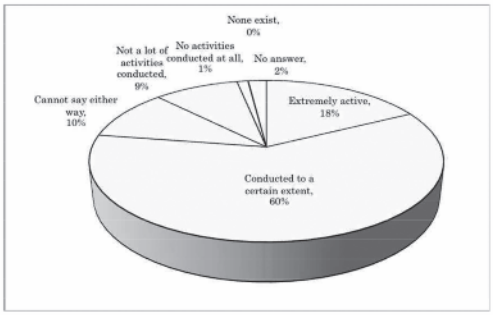

Figure 21: State of Activities in Regional-bond Oriented Groups

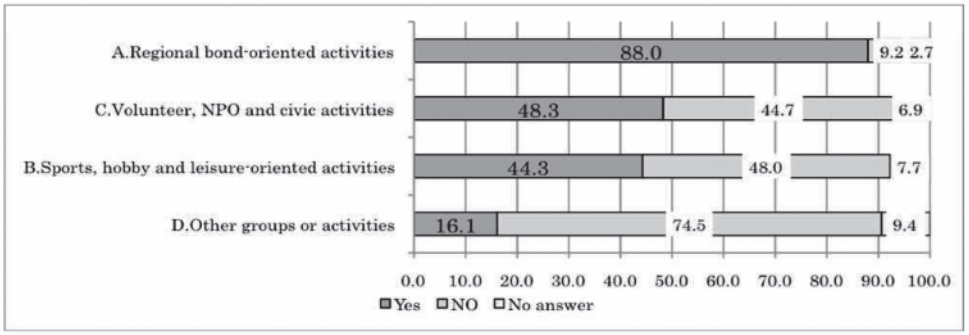

Figure 22: Local Participation in Activities

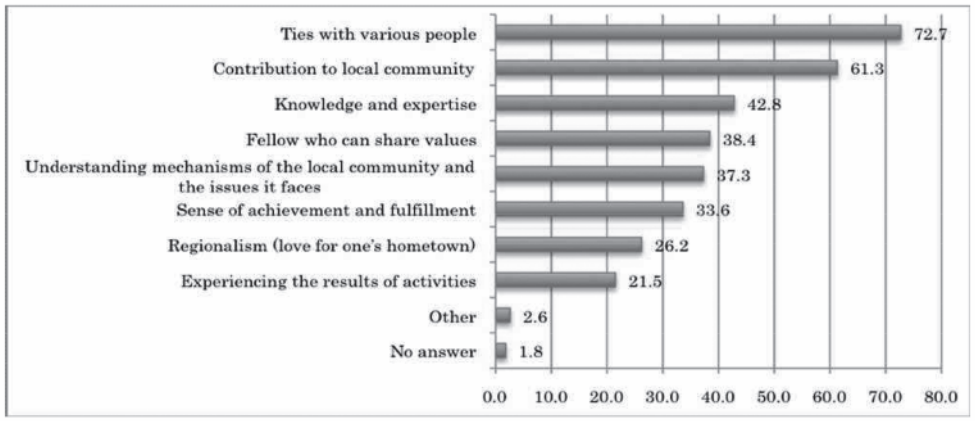

Figure 23: Things Gained through Local Activities

3 - 2 . Results of analysis using multivariate analysis

As a result of performing a nonhierarchical cluster analysis based on the simple statistical data, two clusters were derived (Figure 24). The first cluster comprises 479 people, while the second cluster is made up of 653 people. When a chi-squared test was performed to examine the

deviation in comparative numbers of people, a significant deviation in the proportion of people counts was observed (χ^2=26.75, df=1, p<.000). Since the first cluster exhibits values, which are slightly above average for general trust, particularized trust, participation and involvement in voluntary organizations for disaster management, interaction with friends and acquaintances and neighborhood interaction, it was designated as the "Medium-trust, Interim Group." This is a middle-aged group with a residence history of between 10 and 20 years in Kawasaki City with above-average and well-balanced traits in all aspects of social capital, namely trust, norms (reciprocity of mutual assistance) and networks. As the second cluster exhibits high-particularized trust and high participation, involvement and evaluation of local activities for disaster management, it was designated as the "High-trust, Cohesive Group." As the characteristics of this group are middle-aged to elderly with a residence history of at least 30 years and extremely active involvement in local activities for disaster management, it may possess an abundance of cohesive social capital. On the other hand, this group showed a lower frequency of interaction with friends and acquaintances and proportion of interaction with neighbors, and was somewhat negative with respect to the state of regional bond-oriented activities.

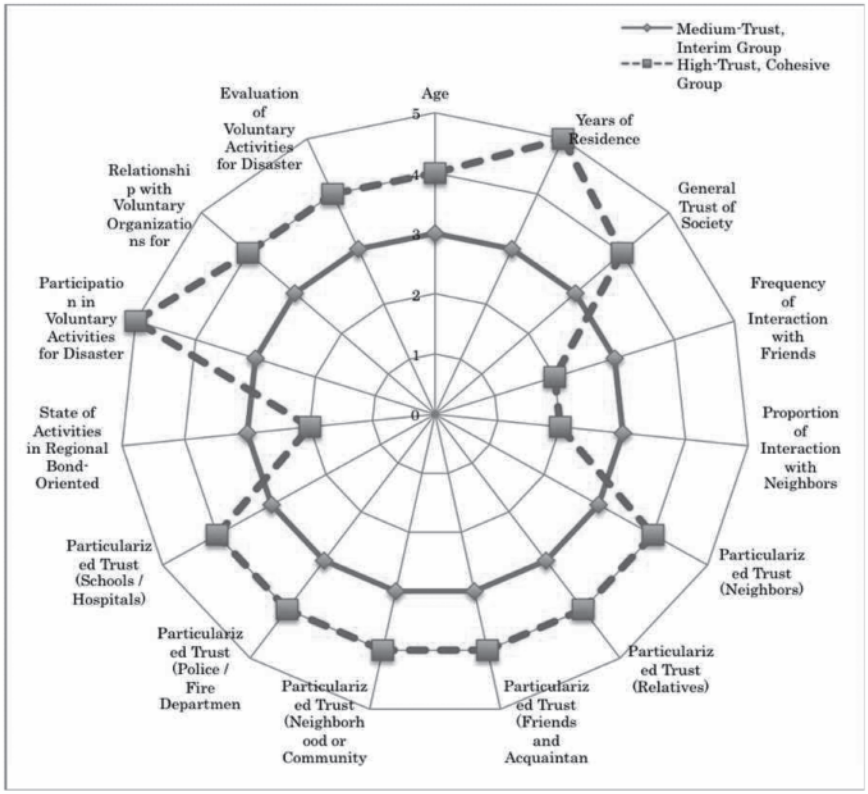

Figure 24: Cluster Analysis Results

Next, with respect to 23 items which serve as measures of general trust and networks, SPSS 22.0 was used to perform a factor analysis through the major factor method and varimax rotation, identifying a 4-factor structure with fixed values of at least 1 (Figure 25). As a ceiling effect was observed for items such as age, residence history and participation in local activities for disaster management, these were removed from the analysis. For Factor 1, as the items indicating particularized trust towards public institutions such as Kanagawa Prefecture, city hall and ward offices showed a high positive load, it was designated as "Public Assistance." For Factor 2, as items indicating general trust of society and trust while traveling showed a high positive load, it was designated as "General Trust." For Factor 3, as items indicating a particularized trust of neighborhood associations, community associations and neighborhoods, it was designated as "Trust of Neighborhood." For Factor 4, as items concerning living standard compared with five years ago and expected living standard five years later showed a high positive load, it was designated as "Life Satisfaction." The correlation coefficients for each factor are as shown in Figure 26. As the Cronbach's coefficients for each factor are α=.90, α=.78, α=.74 and α=.72 for factors 1, 2, 3 and 4 respectively, internal consistency is maintained.

Factor	F1: Public Assistance	F2: General Trust	F3：Trust of Community	F4: Life Satisfaction	Commonality
Particularized Trust (Kanagawa Prefecture)	0.89	0.07	0.06	0.13	0.82
Particularized Trust (City Hall / Ward Office)	0.81	0.13	0.18	0.10	0.71
Particularized Trust (National Government)	0.81	0.09	0.10	0.14	0.69
Particularized Trust (Schools / Hospitals)	0.71	0.10	0.26	0.03	0.58
Particularized Trust (Police / Fire Departments)	0.70	0.08	0.29	0.05	0.58
Particularized Trust (Political Parties / Politicians)	0.51	0.13	0.28	0.15	0.37
Trust while Traveling	0.13	0.80	0.04	0.04	0.66
General Trust of Society	0.12	0.77	0.21	0.06	0.66
Particularized Trust (Neighborhood and Community Associations)	0.33	0.09	0.74	0.11	0.68
Particularized Trust (Neighborhood)	0.20	0.16	0.65	0.12	0.50
Expected Living standard in Five Years	0.10	0.04	0.13	0.78	0.64
Living standard Compared with Five Years Ago	0.12	0.05	0.06	0.69	0.49
Factor Contribution	3.55	1.34	1.31	1.19	7.39
Rate of Contribution	29.60	11.17	10.94	9.87	61.59

Method for identification of factors: Major factor method; Rotation method: Varimax method associated with Kaiser normalization

Figure 25: Results of Factor Analysis

The correlation distribution of the four factors is as shown in Figure 26. According to this, "Public Assistance" indicating trust towards public institutions such as the government, schools, hospitals, police departments and fire departments, and "Trust of Neighborhood"

indicating trust towards neighborhood associations, community associations and neighborhoods, are positively correlated. We also see a positive correlation between "General Trust" and "Trust of Neighborhood," and between "Trust of Neighborhood" and "Life Satisfaction."

	F1: Public Assistance	F2: General Trust	F3: Trust of Neighborhood	F4: Life Satisfaction
F1: Public Assistance	1.00	0.03	.079**	0.04
F2: General Trust		1.00	.064**	0.02
F3: Trust of Neighborhood			1.00	.057*
F4: Life Satisfaction				1.00

Pearson correlation coefficient: ** depicts significance at the 1% level (both sides), * depicts significance at the 5% level (both sides), n=1,608

Figure 26: Correlation Analysis of the Four Factors

Conducting a path analysis based on the above four factors using Amos 18.0 produced the results shown in Figure 27. In terms of indicators of the degree of compatibility, $\chi 2$=96.19, df=24, p<.000 (significance at the 0.1% level), GFI is .983, AGFI is .969, RMR is .037 and RMSEA is .049, producing a model with an extremely high degree of fit.

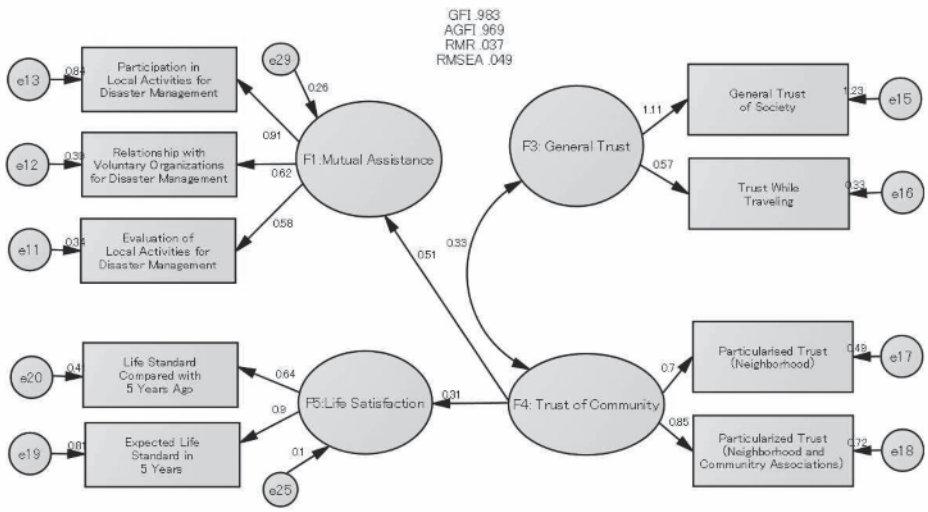

Figure 27: Path Analysis Results

According to this, "General Trust," which includes variables such as general trust of society and travel while traveling, and particularized "Trust of Community," which includes variables such as trust of neighborhoods, neighborhood associations and community associations, have a covariant relationship of affecting one another, and is regarded as forming the basis for directly influencing "Mutual Assistance" and "Life Satisfaction." In other words,

since “Trust of Community” has a relationship of direct impact with respect to all other variables, it is regarded as the most important variable. “Trust of Community” has a direct causal relationship with “Mutual Assistance,” a latent variable of “state of participation in local activities for disaster management,” “relationship with voluntary organizations for disaster management” and “evaluation of local activities for disaster management.” It also has a direct causal relationship with “Life Satisfaction,” the latent variable of “living standard compared with five years ago” and “expected living standard in five years.”

In short, “Trust of Community,” due to its covariant relationship with “General Trust,” is thought to directly affect “Mutual Assistance” and “Life Satisfaction,” and “General Trust” is believed to indirectly affect “Mutual Assistance” and “Life Satisfaction” via its covariant relationship with “Trust of Community.”

4 . Comparative Examination of Survey Results

In Chapter 3, we clarified the community consciousness of citizens in Kawasaki City centered around voluntary organization for disaster management (community association) members. Finally, in the following section we will arrange the general issues concerning community consciousness and the fostering of social capital while performing comparative examination of the nationwide community association survey conducted by Tsujinaka and others (2009) and the results of this survey.

4 - 1 . Comparison with the Community Association Survey

Figure 28 is a comparison of the sample characteristics in the nationwide community association survey conducted by Tsujinaka et. al. (“Nationwide Community Association Survey,” hereafter) and the Kawasaki City survey (“Survey of Kawasaki City Citizens,” hereafter). As the purpose and people surveyed differs slightly between both surveys, the comparison is strictly on the level of a reference, but since middle-aged and elderly males made up the majority of respondents in both surveys, we can infer that the middle-aged and elderly males play a central role in the operation of neighborhood and community associations.

	Nationwide Community Association Survey (2009)	Survey of Kawasaki City Voluntary organizations for disaster management (2013)
Respondents	Community association chairpersons	Citizens in Kawasaki City centered around voluntary organization for disaster management members (69.8% were members of voluntary organizations for disaster management)
Gender	97% of association representatives were male	71% of respondents were male (among members of voluntary organizations for disaster management the proportion of males was 80.1%)
Age Group	79.5% were 50s and older males	57.3% were 50s and older males (among members of voluntary organizations for disaster management 66.4% were 50s and older males)
Residence History	75.3% of community association chairpersons had a residence history of at least 30 years	69% had a residence history of at least 30 years (61.8% among members of voluntary organizations for disaster management)
Occupation	The main people in charge are retirees	Gainfully employed: 47%, unemployed: 36%, stay-at-home husbands and wives: 13% (Among members of voluntary organizations for disaster management, those regularly and irregularly employed was 51.4%, 35.3% were unemployed, and 11.9% were stay-at-home husbands and wives)

Figure 28: Comparison of Sample Characteristics Between Nationwide Community Association Survey and Survey of Kawasaki City Citizens

The Nationwide Community Association Survey indicated that the more lively the community association-driven initiatives and resident interaction, the greater the social capital. With respect to this, in the Survey of Kawasaki City Citizens, a large majority of respondents (79%) engaged in relatively closer neighborhood interaction and a large number (76%) became acquainted with and deepened exchanges with a lot of people. In addition, as the rate of participation in local activities for disaster management and regional bond-oriented activities was also high, we can infer that interactions between residents, especially the respondents, are lively, and a certain degree of social capital has been fostered between them.

The Nationwide Community Association Survey indicated that social capital in community associations represents homogenous links between people (bonding) and that this is linked with participation in activities. The same points also become clear in the path analysis of the Survey of Kawasaki City Citizens. Particularized "Trust of Community" such as trust of neighborhoods, neighborhood associations and community associations not only enhances contribution to "Mutual Assistance," a latent variable of "state of participation in local activities for disaster management," "relationship with voluntary organizations for disaster management" and "evaluation of local activities for disaster management." but is also an important variable that has a direct impact on all over variables, including "General Trust" and "Life Satisfaction."

On the other hand, while the "High-trust, Cohesion Group" that became apparent in the cluster analysis indicated a deep contribution to cohesion-type (bonding) regional bond-oriented activities in the form of voluntary organizations for disaster management, the group does not contribute very deeply to neighborhood interaction and the activities of regional bond-oriented groups, and the frequency of interaction with friends and acquaintances was also low. In other words, although cohesion-type social capital has been adequately fostered, it appears that the form of social capital that builds bridges between other groups and citizens (bridging-type social capital) has not been sufficiently fostered. This point could be described as an issue impeding the fostering of social capital in voluntary organization for disaster management-oriented communities.

4 - 2 . Summary and Issues

In this study, we shed light on the citizens' perception of community in Kawasaki City centered around voluntary organization for disaster management (community association) members and discussed the fostering of community consciousness and social capital among Kawasaki City residents based on a comparison with previous studies.

We were able to confirm that the various characteristics of community association organizations and social capital shown in the Nationwide Community Association Survey as characteristics that are mostly the same in the Survey of Kawasaki City Citizens. In communities centered around voluntary organization for disaster management members, middle-aged and elderly males play central roles, and foster "cohesive social capital" based on "Trust of Community." People in the "High-trust, Cohesion Group," who exhibit a deep contribution to voluntary organizations for disaster management, are regarded as having high levels of general trust and particularized trust, and while cohesion between members is strong, tend to be passive regarding exchanges with other regional bond-oriented groups, friends and acquaintances. To broaden the social capital fostered by voluntary organizations for disaster management to encompass a wider scope of citizen groups and bring about the revitalization of regions, mechanisms that enable exchanges between the "High-trust, Cohesion Group" and "Medium-Trust Group" by enhancing the bridge-building (bridging) functions between other regional bond-oriented groups and citizens while maintaining the cohesive relationships of voluntary organizations for disaster management are desired. In the Nationwide Community Association Survey, it was pointed out that by having different factors contribute to changes in resident interaction, those aspects might continue to change. Viewed from the perspective of this point, by taking exchanges with other regional bond-oriented groups and NPOs and exchanges with new and old citizens (cross-generational exchange) and incorporating those exchanges into interaction related to voluntary organizations for disaster management, we can expect that social capital fostered by voluntary organizations for disaster management will expand in new directions.

For these reasons, in terms of a measure to reinvigorate civil activities in Kawasaki City, a future task will be to proceed with investigations into exchanges between a variety of new

and old regional bond-oriented groups, NPOs and similar organizations, and then study and develop general knowledge concerning the broadening of cohesive and bridge-building social capital.

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